ABSTRACT OF THE DISCLOSURE

A bandwidth control method and a bandwidth control device for a network switch are disclosed. When a client port has a packet to be transmitted, the average traffic rate $Tr[n+1]$ of the client port generated before the time slot n+1 is determined by $Tr[n+1]=g*Tr\Delta[n]+(1-g)*Tr[n]$, where $g<1$, $Tr\Delta[n]$ is the traffic rate of the client port in time slot n, and $Tr[n]$ is an actual average traffic rate generated before time slot n. Only when $Tr[n+1]$ is smaller than the bandwidth threshold Tr_pre of the client port, the packet is allowed to be transmitted.